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Harry F Smith Esq
Ohlandt Greeley Ruggiero & Perle LLP
One Landmark Square
Stamford, CT 06901

EXAMINER

LAFORGIA, CHRISTIAN A

ART UNIT PAPER NUMBER

2131

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/665,627

Applicant(s)

LE PENNEC ET AL.

Examiner

Christian La Forgia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed on 19 July 2004 has been noted and made of record
2. Claims 1-22 have been presented for examination.

Response to Arguments

3. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.
4. See further rejections that follow.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner would like to point out that where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). In addition, the Applicant fails to meet the requirements of redefining a term as set forth in the MPEP § 2106. In order to define/redefine a term, the Applicant must do so “with reasonable clarity, deliberateness, and precision” and must “set out his uncommon definition in some manner within the patent disclosure” so as to give one of ordinary skill in the art notice of the change” in meaning. The term “certificate” in claims 1-19

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is used by the claim to mean, “an identifier to indicate that a file is virus-free”, while the accepted meaning is “An attachment to an electronic message used for security purposes. The most common use of a digital certificate is to verify that a user sending a message is who he or she claims to be, and to provide the receiver with the means to encode a reply.” The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1, 3, 4, 7, 9, 11-18 and 21-22 are rejected under 35 U.S.C. 103(a) as unpatentable by U.S. Patent 6,154,844 to Touboul et al., hereinafter Touboul, in view of U.S. Patent No. 6,094,731 to Waldin et al., hereinafter Waldin.

9. As per claims 1, 12, and 13, Touboul teaches a method, for use in a virus-free certificate authority, of generating a virus-free certificate certifying that a file is virus-free comprising the steps of:

- receiving a request for a file from a server or a client system, said request comprising the file for which the request is being made (Figures 1 [block 120], 7 [block 705];
- determining whether file has been certified as virus-free (figure 7, step 720);
If the file has not been certified as virus-free (figure 7, step 720):
- determining whether the file is virus-free or not (figure 7, steps 750 and 755)
(column 10, lines 5-7);
if the file is declared virus-free (figure 7, step 760):

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- generating a certificate comprising a file signature for certifying that said file is declared virus-free by the virus-free certificate authority (figure 6, step 635 performed during step 750 in figure 7);
- integrating the generated certificate in the file (figure 6, step 635 performed during step 750 in figure 7);
- sending back in response to the request the file with the integrated certificate (figure 7, step 770).

10. Touboul does not disclose a virus-free certificate request and certifying that a file is virus free.

11. Waldin discloses certifying a file is virus free (column 6, lines 10-15).

12. It would have been obvious to one of ordinary skill in the art as the time the invention was made to certify a file as virus-free, since Waldin discloses at column 2, line 54 to column 3, line 4 that such a modification would eliminate redundant scanning for at least some computers, thereby allocating more system resources.

13. Regarding claim 3, Touboul teaches that the file comprised in the virus-free certificate request contains an integrated virus-free certificate (figure 7, step 725).

14. Regarding claim 4, Touboul teaches the steps of:

If the file comprises an integrated virus-free certificate, determining whether the virus-free certificate integrated in the file has been previously generated by the virus-free certificate

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authority, and if that is the case (i.e. "YES" branch in figure 7, step 720), updating the virus-free certificate (figure 7, step 725).

If the virus-free certificate integrated in the file has not been previously generated by the virus-free certificate authority, then generating a new virus-free certificate (i.e. "NO" branch in Figure 7, step 720 followed by step 750).

15. That is, Touboul teaches that the network system may include multiple inspectors (i.e. certification authorities), wherein each inspector may provide a different content inspection. Each inspector would attach a corresponding DSP and a certificate verifying the authenticity of the attached DSP (column 5, lines 48-55). Thus, it can be inferred that if the inspector that originally produced the certificate receives a downloadable with an integrated certificate, the certificate is updated (i.e. authenticated). But if an inspector different from the one that originally produced the certificate receives it, the downloadable is inspected and a new certificate is attached to it.

16. Regarding claim 7, Touboul teaches that the step of determining whether the file is virus-free or not comprises the further step of executing one or a plurality of anti-virus programs on said file for detecting viruses (column 9, lines 12-17).

17. Regarding claim 9, Touboul teaches that the virus-free certificate further comprises:
a file identification (i.e. Downloadable ID) (column 6, lines 6-7);
a virus-free certificate authority identification (i.e. name of the certifying authority that issued to certificate) (column 6, lines 12-13);

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a public key for decrypting the file signature (i.e. the inspector's public key) (column 6, line11);

18. Touboul does not teach that the virus-free certificate also comprises a certificate signature for authenticating purposes. However, the use of a certificate signature for authenticating a certificate is old and well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a certificate signature with the certificate because this would provide a recognized way of authentication.

19. Regarding claim 11, Touboul teaches that the step of generating a file signature comprises the further steps of:

- hashing the file to generate a file digest (i.e. Downloadable ID) (column 8, lines 61-63);
- encrypting the file digest (i.e. Downloadable ID) using a private key (column 6, line 5).

20. As per claims 14, 21, and 22, Touboul teaches a method, for use in a server or client system, of determining that a file is virus-free comprising the steps of:

- determining whether a file is certified as virus-free (figure 7, step 720);
- if a certificate is integrated within the file:
- authenticating the certificate, said certificate comprising a certificate signature (Figure 7 [block 725], column 6, lines 10-13);

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- authenticating the file, said certificate comprising a file signature (i.e. Downloadable ID), said file signature certifying that said file has been declared virus-free by a certifying authority (i.e. each inspector would attach a corresponding DSP and a certificate verifying the authenticity of the attached DSP) (Figure 7 [block 735], column 5, lines 52-54).
21. Touboul does not disclose certifying a file as virus free.
22. Waldin discloses certifying a file is virus free (column 6, lines 10-15).
23. It would have been obvious to one of ordinary skill in the art as the time the invention was made to certify a file as virus-free, since Waldin discloses at column 2, line 54 to column 3, line 4 that such a modification would eliminate redundant scanning for at least some computers, thereby allocating more system resources.
24. Regarding claim 15, Touboul teaches that the step of authenticating the file comprises the further steps of:
- decrypting the file signature (i.e. Downloadable ID) using a public key comprised in the virus-free certificate (column 9, lines 36-41).
 - hashing the file to generate a file digest (column 9, lines 44-45);
 - comparing the decrypted file signature with the generated file digest (column 9, lines 49-52).
25. Regarding claim 16, Touboul teaches that the step of authenticating the virus-free certificate comprises the further step of validating the virus-free certificate. That is, Touboul

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teaches that the virus-free certificate may include an expiration date (column 6, lines 11-16; column 9, line 37-40). Therefore, it can be inferred that the step of authenticating the virus-free certificate may include not only the authenticating of the Downloadable ID, but also the validating of the expiration date.

26. With regards to claim 17, Touboul teaches that the step of validating the virus-free certificate comprises the further step of:

- determining whether the virus-free certificate is valid or not (column 6, lines 11-16; column 9, line 37-40);

If the virus-free certificate is not valid (figure 7, step 745):

- requesting a virus-free certificate update or an updated virus-free certificate update to a virus-free certificate authority (figure 7, step 750).

27. Regarding claim 18, Touboul teaches that the virus-free certificate further comprises:

a file identification (i.e. Downloadable ID) (column 6, lines 6-7);
a virus-free certificate authority identification (i.e. name of the certifying authority that issued to certificate) (column 6, lines 12-13);
a public key for decrypting the file signature (i.e. the inspector's public key) (column 6, line 11).

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28. Claims 2, 5-6, 8, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Touboul in view of Waldin as applied above, and in further view of U.S. Patent 6,275,937 to Hailpern et al., hereinafter Hailpern.

29. Regarding claim 2, Touboul and Waldin teach the system of claim 1 as discussed above.

30. Touboul and Waldin do not teach that the virus-free certificate request comprises a list of one or a plurality of anti-virus programs to execute on the file to determine whether the file is virus-free or not.

31. Hailpern discloses a collaborative method of virus checking data object in a network of servers (column 1, lines 25-27).

32. Hailpern teaches including within a virus-free certificate request (i.e. PRRR) a list of one or a plurality of anti-virus programs to execute on a file to determine whether the file is virus-free or not (column 9, lines 61-63), (column 10, lines 37-67).

33. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Touboul and Waldin with the teachings of Hailpern to include within a virus-free certificate request a list of one or a plurality of anti-virus programs to execute on a file to determine whether the file is virus-free or not with the motivation to establish a collaborative method for processing the files (Hailpern, column 3, lines 65-66).

34. Regarding claim 5, Touboul and Waldin do not teach that the file further comprises a file header comprising:

- a non encrypted file signature;
- a file length;

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- a product name.
35. Hailpern teaches a file (i.e. http request/response) comprising a file header comprising:
- a non encrypted file signature (figure 10, step 7020);
 - a file length (column 2, line 15);
 - a product name (i.e. information or data associated with a given object) (column 2, line 10).
36. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Touboul and Waldin with the teachings of Hailpern to include that the file further comprises a file header comprising a non encrypted file signature, a file length; and a product name with the motivation to establish a collaborative method for processing the files (Hailpern, column 3, lines 65-66).
37. Regarding claims 6 and 19, Touboul and Waldin teach that the step of integrating the virus-free certificate in the file comprises the further step of:
- appending the virus-free certificate to the file (figure 6, step 635).
38. Touboul and Waldin do not teach the additional steps of:
- modifying the file header, preferably:
 - the non encrypted file signature;
 - the file length;
 - a product name, said product name comprising means for identifying the integrated virus-free certificate.

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Hailpern teaches the updating of header fields as a result of the modification of a data object (i.e. the PJ.Header is modified, if necessary, to reflect the new, processed data [e.g. the value of the “length” field may have changed due to modifications made to the data objects by one or more of the processes, such as IBM Antivirus]) (column 17, lines 14-19). The Examiner infers that likewise, the other affected fields in the header (i.e. file signature and product name) are also updated.

39. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Touboul and Waldin with the teachings of Hailpern to include the additional steps of modifying the file header, preferably the non encrypted file signature; the file length; and a product name comprising means for identifying the integrated virus-free certificate with the motivation to establish a collaborative method for processing the files (Hailpern, column 3, lines 65-66).

40. Regarding claim 8, Touboul and Waldin teach the system of claim 1 as discussed above.

41. Touboul and Waldin, however, do not teach that the virus-free certificate further comprises a list of the anti-virus programs that have been executed on the file.

42. Hailpern discloses a certificate (i.e. listing of the results of applying anti-virus checking) (column 13, line 29) comprising a list of the anti-virus programs that have been executed on a file (column 13, lines 30-36).

43. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Touboul and Waldin with the teachings of Hailpern to include that the virus-free certificate further comprises a list of the anti-virus programs that have been

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executed on the file with the motivation to establish a collaborative method for processing the files (Hailpern, column 3, lines 65-66).

44. Regarding to claim 20, Touboul and Waldin teach the method of claim 14.

45. Touboul and Waldin do not teach that the step of determining whether a virus-free certificate is integrated within a file comprises the further step of determining whether a product name within a file header comprises means for identifying the integrated virus-free certificate.

46. Hailpern teaches that a product name within a file header comprises means for identifying the integrated virus-free certificate (i.e. a PICS Processing Label is a conventional PICS Label which allows servers having features of the current invention to indicate the processing they have applied to a piece of data they return or transfer by including the label in the HTTP header as an additional field) (column 12, lines 50-54) (column 13, lines 28-36).

47. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Touboul and Waldin with the teachings of Hailpern to include that the step of determining whether a virus-free certificate is integrated within a file comprises the further step of determining whether a product name within a file header comprises means for identifying the integrated virus-free certificate with the motivation to establish a collaborative method for processing the files (Hailpern, column 3, lines 65-66).

48. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Touboul and Waldin as applied above, and in further view US 20030110376 A1 and Wiener et al., hereinafter Wiener.

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49. Regarding claim 10, Touboul and Waldin teach the system of claim 1 as discussed above.

50. Touboul and Waldin do not teach the further steps of:

- identifying the server or client system where the file comprising the integrated virus-free certificate is stored;
- updating the file with the integrated virus-free certificate.

51. Wiener discloses a system for providing certificate lifetime data (see Abstract).

52. Wiener teaches identifying a server or client where a file comprising a certificate is located and updating the file with the certificate (i.e. after the manager 12 has received the new digital signature key pair from the client unit, the manager 12 creates a new digital signature certificate containing the selected public key expiry data as entered by the security officer, for the client generating the digital signature key pair update request. The manager 12 associates the selected expiry data with the new key pairs as indicated by linking the selected expiry data with the public digital signature key as shown in block 46. The manager sends the new digital signature certificate to the requesting client on the secure online path) (see par. 0022).

53. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Touboul and Waldin with the teachings of Wiener to include the additional steps identifying the server or client system where the file comprising the integrated virus-free certificate is stored; updating the file with the integrated virus-free certificate with the motivation to establish a method of updating certificates that is effectively transparent to a user (Wiener, par. 0006).

Conclusion

54. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

55. The following patents are cited to further show the state of the art with respect to certifying files as virus-free, such as:

United States Patent No. 5,606,609 to Houser et al., which is cited to show electronic document verification.

United States Patent No. 6,092,194 to Touboul, which is cited to show protecting a computer and a network from hostile downloads.

United States Patent No. 6,021,510 to Nachenberg, which is cited to show an anti-virus accelerator.

United States Patent No. 6,577,920 to Hypponen, which is cited to show computer virus screening.

56. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (571) 272-3792. The examiner can normally be reached on Monday thru Thursday 7-5.


57. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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58. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christian LaForgia
Patent Examiner
Art Unit 2131

clf


EMMANUELL L. MOISE
PATENT EXAMINER